CLEAN, FLOWING WATERS FOR WASHINGTON

The Center for Environmental Law & Policy

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Ms. Annie Sawabini
Washington Department of Ecology
PO Box 47600
Olympia WA 98504-7600
Annie.Sawabini@ecy.wa.gov

RE: Comments on Interim Guidance for Determining Net Ecological Benefit, June 2018, Publication 18-11-009

Dear Ms. Sawabini,

The Center for Environmental Law and Policy (CELP) appreciates this opportunity to provide comments on the Department of Ecology's June 2018 draft of its Interim Guidance for Determining Net Ecological Benefit.

CELP recognizes that the hasty process underlying the development, adoption, and implementation of ESSB 6091, codified at RCW 90.94, has put the Department of Ecology (WDOE) in a difficult position. Even so, we believe that it is vital that WDOE not create a process which results in irretrievable commitments that are detrimental to instream flow rights.

Good information is essential to good decision-making

Information presented to the Joint Legislative Taskforce on Mitigation makes clear that developing new information on groundwater supplies and movement will be essential to informed decision-making. Understanding the impacts of groundwater withdrawals and the effects of attempts to recharge aquifers is a complicated process.[1] Most WRIAs will need time and additional funding to be able to conduct the analyses to reasonably estimate the effects of new water withdrawals on both large and small streams within a WRIA and attempts to recharge aquifers. Unfortunately, Ecology's draft guidance gives the green light to watersheds that they can use existing or available information with little regard as to the adequacy of existing/available information:

> Information on local conditions is crucial to understanding how to achieve NEB for individual watersheds. NEB evaluations should make use of available information on watershed-specific factors including: hydrogeology, stream flow conditions, fish populations and life histories, current habitat conditions, water use demand, and local salmon-recovery efforts. Ecology's evaluation of NEB will incorporate existing information on watershed-specific factors that are addressed during the planning process and rely heavily on input from local, state, federal and tribal resource managers, and water resources stakeholders participating in the planning process.[2]

[1] *See* USGS, "Groundwater Modeling to Inform Water Resource Mitigation (September 28, 2018) (Presentation to the Joint Legislative Taskforce on Mitigation by Rick Dinicola, Associate Director, US Geological Survey Washington Water Science Center) (Frames 11-20).

[2] *See* WDOE, Interim Guidance for Determining Net Ecological Benefit for streamflow restoration planning and water permit mitigation pilots under the 2018 Streamflow Restoration Act (June 2018) (Publication 18-11-009) at 2 (emphasis

WDOE's discussion of element 1 calls for watershed plans to characterize potential impacts to instream resources from new domestic permit-exempt water use. It notes that:

> Where information is readily available, estimated impacts should be quantified or described for individual rivers or stream reaches so that the miles of diminished stream channel habitat can be calculated. However, the number of affected reaches could be extensive. Therefore, bearing in mind the intent of Sections 202 and 203 to improve ecological benefit on a WRIA-scale basis, instead of analyzing individual impacts, plans may provide generalized information about affected reaches.[3]

Again, WDOE clearly allows watershed plans to rely on "readily available" information[4], in this case, for quantifying/describing the miles of diminished stream channel habitat.[5] WDOE also allows for the use of "generalized information" about affected reaches. What is that? How useful will it be?

In contrast, the element 1 discussion also states that "estimates of the consumptive impact of new domestic permit-exempt water use should be calculated for discreet [sic] areas."[6] Similarly, WDOE notes that this partitioning will provide clarity when discussing the benefits of offset projects.[7] What is the point of requiring watershed plans to provide "generalized information" about impacts when they are supposed to be considering impacts and offsets at a more local and hopefully quantifiable scale? While WDOE states that ESSB 6091 may allow for mitigation to occur in areas other than those adversely affected by new permit-exempt well withdrawals, most of the time that will be a less satisfactory solution for the resources dependent upon instream flows than will mitigation that assures no impact. Moreover, the Legislature has sent the clear message that such actions are lower priority than actions that "include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary."[8]

Another example of Ecology's reliance on existing information is its suggestion that "[i]f available, data on consumptive domestic permit exempt use impacts should be used to characterize:

- Timing or location of impacts
- Sensitivity of individual streams to new withdrawals
- The proportion of flow impacted
- Whether stream flow is identified as a limiting factor for recovery in a local salmon recovery plan."[9]

What happens if this data is not "available?" How does one determine the adequacy of compensation if one does not know the timing and location of impacts? How does one determine the "sensitivity" of streams to new withdrawals? This proposed consideration implies that if a stream is deemed to be

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added). Relying on the input of local resource managers and stakeholders is no substitute for actual data and peer-reviewed modeling.

[3] *Id*. at 4 (emphasis added).

[4] Requiring the use of "readily available" information is a looser standard than requiring the use of "available information." What is the line between the two?

[5] It is not clear why WDOE chose "miles of diminished stream habitat" as a relevant measure of habitat degradation. Are all miles of habitat equally productive? No. Does each mile of habitat support all life-stages of salmon? No.

[6] Interim Guidance at 4.

[7] *Id*.

[8] RCW 90.94.020(4)(b).

[9] Interim Guidance at 5.

"insensitive" – whatever that means – that there may be no need to offset the new groundwater withdrawal. Similarly, what happens if a local salmon recovery plan does not identify instream flow as a limiting factor? Does that mean that groundwater flow is not a concern for salmon and other instream resources? To the contrary, it is reasonable to assume that there are always impacts from additional groundwater consumptive use.[10] The Legislature did not limit the mitigation obligation to just those streams that Ecology deems "sensitive" or that support ESA-listed salmon that have a recovery plan.[11]

Under element 2, WDOE reiterates its direction that "using the best information available", plans should "quantify the amount, location and timing of benefits for all of the water offset projects." In many places it may not be possible to reasonably quantify the benefits of these projects using existing information. As noted earlier, watersheds need to have the time and technical support to make data-based determinations. To the extent that some watersheds are constrained by statutory deadlines that were developed with an incomplete understanding of the complexity of groundwater management, WDOE should point out the need for more time. In the absence of adequate time to accurately quantify the benefits of water offset projects, WDOE needs to mandate risk-averse assumptions about the effectiveness of offset projects, perhaps providing a margin of safety by requiring water offsets to be somewhat greater than the anticipated impacts. If Ecology is sufficiently risk-averse, some projects may produce additional benefits that can be used to offset future development. Monitoring will be essential to assure that approved projects result in the anticipated benefits and that those benefits are sustained over time.

The Interim Guidance tends to focus attention on ESA-listed species to the detriment of other instream resources.

NEB policy places an emphasis on measures to support the recovery of threatened and endangered salmonids but does not refer to "instream resources," which include all fish.[12] This emphasis on listed salmon is not required by the statute and may lead to undervaluation of non-listed fish and related instream resources. The statute states:

> In collaboration with the planning unit, the initiating governments must update the watershed plan to include recommendations for projects and actions that will measure, protect, and enhance instream resources and improve watershed functions that support the recovery of threatened and endangered salmonids.[13]

The plain language of the statute does not elevate ESA-listed salmonids over other instream resources. Instead it requires protection and enhancement of both. Moreover, the term "instream resources" is broader than just fish.[14] According to Ecology, the purpose of instream flows is "to protect and preserve instream resources and values such as fish, wildlife, recreation, aesthetics, water quality, and

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[10] As indicated in the USGS presentation to the Joint Legislative Taskforce on Mitigation: "Pumping is often a relatively small component of a basin's groundwater budget, but…Models show it can still have significant effects (increases and decreases) on seasonal streamflows in small basins….Any increase in pumping (and consumptive use) will be accompanied by an equivalent decrease in groundwater storage, or discharge to somewhere (often Puget Sound)." USGS Presentation to Joint Legislative Taskforce on Mitigation (September 2018) Frame 15 (emphasis added).

[11] There is no basis in the statute for the "sensitive-insensitive" distinction that Ecology has inserted into the draft net ecological benefits policy nor does Ecology reference any authority for this position.

[12] *See* Interim Guidance at 3.

[13] RCW 90.94.020(4)(a) (emphasis added). The other reference in the statute to ESA-listed salmon uses similar language. *See* RCW 90.94.030(3)(a).

[14] RCW 90.22.010 authorizes protection of flows to support "fish, game, birds or other wildlife resources, or recreational or aesthetic values." RCW 90.54.020(3) mandates protection of "wildlife, fish, scenic, aesthetic and other environmental values, and navigational values" through maintenance of adequate streamflows.

navigation."[15] The statute does not require or necessarily even allow prioritization of ESA-listed salmon to the detriment of other instream resources.

High Priority Actions Include More than just High Priority Projects

WDOE's interpretation of those actions that watershed planning units should designate as high priority appears to be unduly narrow. Ecology's interim guidance states that the statute establishes a hierarchy of projects for offsetting the impacts of consumptive domestic permit exempt well use:

- Highest priority are projects that replace consumptive domestic water use impacts during the same time and in the same subbasin as the impacts occur.
- Lower priority are projects that replace consumptive domestic water use impacts elsewhere within the WRIA or only during critical flow periods.[16]

That is not what the statute actually says. Instead, the statute provides that:

> At a minimum, the watershed plan must include those actions that the planning units determine to be necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use. The highest priority recommendations must include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary. Lower priority projects include projects not in the same basin or tributary and projects that replace consumptive water supply impacts only during critical flow periods.[17]

The statute is not as limiting as Ecology's interim guidance. It recognizes that there are other actions, not just projects, that may deserve high priority. For example, the statute explicitly grants authority to Ecology to spend money to "assess, plan, and develop projects that include acquiring senior water rights, water conservation, water reuse, stream gaging, groundwater monitoring, and developing natural and constructed infrastructure…."[18] Unquestionably, the Legislature intends that Ecology fund data collection and modeling that enables local governments and Ecology to make informed decisions about what actions are necessary to first offset the consumptive use of new permit-exempt domestic wells. The interim guidance needs to be amended to reflect the Legislature's intent that local governments and Ecology make well informed decisions.

Guidance Is Needed to Help Local Governments Assess the Benefits of the Actions and Projects They Propose.

As noted above, the Legislature has declared that the highest priority recommendations include replacing the quantity of consumptive water use during the same time as the impact and in the same basin or tributary. Lower priority projects include water offset projects that are not in the same basin or tributary and projects that replace consumptive water supply impacts only during critical flow periods.[19] RCW 90.94.020(4)(b). The statute's command that water offset projects be implemented to the extent necessary to fully offset all new permit-exempt domestic well water use[20] is a critical component of the process for assuring that watershed plans result in an overall net improvement in instream resources.

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[15] *See* https://ecology.wa.gov/Water-Shorelines/Water-supply/Protecting-stream-flows (accessed Nov. 6, 2018).

[16] Interim Guidance at 3 (emphasis added).

[17] RCW 90.94.020(4)(b) (emphasis added).

[18] RCW 90.94.080(2).

[19] *See* RCW 90.94.020(4)(b).

[20] *See* RCW 90.90.020(4)(b): *"[a]t a minimum*, the watershed plan must include those actions that the planning units determine to be necessary to offset potential impacts to instream flows associated with permit-exempt domestic water use." (emphasis added); *see also* RCW 90.94.030.

Once this is accomplished, then watershed planners can develop and seek funding for non-water offset projects for which the benefits to instream resources are more tenuous and difficult to assess.

Securing flow offsets (e.g., acquisition of replacement surface flows) and other mitigation actions and assuring that they remain in place in perpetuity are all complicated processes. This was amply illustrated by the presentation to the Legislative Taskforce on Mitigation entitled Implementing and Monitoring Mitigation by Peter Dykstra (Plauche and Carr). It gets even more complicated when trying to assess the benefits of floodplain restoration, aquifer recharge, and groundwater right acquisition – a complexity which Ecology acknowledges.[21] Funding and guidance are needed to assure that local governments have the tools necessary to accurately analyze these kinds of proposals. Ecology states that:

> Descriptions of water offset quantity, location, and timing are needed to accurately evaluate whether a water offset project can be considered a high priority project. Those water offset attributes can then be evaluated against available information or documented assumptions about the amount and location of the projected consumptive impact of new domestic permit-exempt water use within a subbasin.[22]

Without groundwater maps, how does one assess whether water offsets will mitigate the impact of new groundwater withdrawals? What are the risks of error associated with the unstated range of evaluation methods that Ecology anticipates local governments might use to assess whether water offset projects actually mitigate the impacts of additional groundwater withdrawals? Ecology's desire to let local governments rely on existing information in developing their watershed plans creates significant risk of misinformed and/or bad decisions. How does Ecology intend to address this risk?[23] Ecology should identify those methods that it currently finds acceptable and allow local governments the latitude to choose alternate approaches, so long as the local government affirmatively demonstrates that it's chosen method provides results that are at least as accurate and risk averse as those recommended by Ecology.

More Guidance Is Needed on How to Develop Watershed Plans that Produce Net Ecological Benefit. WDOE needs to provide more guidance on what data and analysis needs to be produced for quantifying the benefits of water offset projects, including floodplain restoration, levee removal, shallow aquifer recharge etc. Currently, the interim guidance suggests that plans calling for water offset projects, such as those mentioned above, "will need to document the assumptions and methods used to calculate benefits."[24] In discussing how to calculate the benefits from non-water offset projects, Ecology states:

> Whenever complex mechanisms are at play and analyses require incorporating a series of assumptions, plans should thoroughly document the assumptions and methods used. This allows Ecology to accurately assess ecological benefit. Overall, evaluating the benefits of non-water

[21] Interim Guidance at 5 and 6.
[22] *Id*. at 6.
[23] One possible risk averse approach might be to assume that a withdrawal of groundwater will impact the nearest stream reach to the same extent as consumptive water use from the withdrawal of surface water. A somewhat established approach for addressing uncertainty in the effectiveness of mitigation for impacts to wetlands is to increase mitigation ratios. Such an approach may be appropriate in the context of implementing RCW 90.94. Accordingly, where the success of a project is uncertain or where there might be a significant lapse of time before a mitigation project is able to compensate for the impacts of groundwater withdrawal, then it would be appropriate to increase mitigation ratios. *See e.g*., WDOE, Corps of Engineers, and EPA, Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance (Version 1, March 2006) (Publication # 06-06-011a). (Accessed on Nov. 6, 2018 at https://ecology.wa.gov/Water-Shorelines/Wetlands/Mitigation/Interagency-guidance) at 75. The agencies also provide guidance on how mitigation ratios should be developed. *Id*. at 69-76.
[24] Interim Guidance at 5.

projects should be based on objective criteria such as timing, location, and ecological value to instream resources.[25]

It is difficult to see how such vague guidance could result in plans that are even somewhat consistent from one planning unit to another. How can Ecology "accurately assess ecological benefit" when it has not defined how to measure ecological condition? Ecology has "punted" the issue of defining ecological benefits and measurement tools to each planning unit.

To properly characterize benefits to instream resources, plans should list and describe each habitat project with the following information when available:

- Information on the proposed project that includes a narrative description and a quantitative and/or qualitative assessment of how the project will contribute to NEB.
- Maps and drawings of the proposal.
- Performance goals and measures (e.g. success rates, duration of expected benefits, desired future conditions, etc.).
- The species, life stages and specific ecosystem structure, composition, or function addressed by the project.[26]
- The length of stream or river reaches affected and the relative importance of the affected reach as habitat for focal species.
- Whether the project addresses threats and limiting factors identified in the local salmon recovery plan or other recovery plans.
- Documentation of scientific sources, methods, and assumptions.[27]

The above list of considerations for determining ecological benefits is qualified by the language "when available" so it would appear that local governments and planners are free to move forward with whatever data they may have. Even so, Ecology has left definition of performance goals, desired future conditions up to the various local governments, consequently it is likely that there will not be consistency in performance goals and desired future conditions from watershed to watershed. It is difficult to see how even a somewhat consistent statewide approach to achieving net ecological benefit can be developed in the absence of definition of key terms.

The term "net ecological benefit" appears four times in RCW 90.94 and achieving "net ecological benefit" is crucial to the mitigation goals of the statute. Since the Legislature did not define the term, it is up to Ecology to define it. Ecology claims that it is possible for it to accurately evaluate whether net ecological benefit has occurred and that such an evaluation should be based on objective criteria such as timing, location, and ecological value to instream resources. While the Legislature directs that local governments develop plans intended to achieve "net ecological benefit,"[28] Ecology is ultimately responsible for making the determination of whether the actions (not just projects) proposed in the plan will result in achieving a "net ecological benefit."[29] How can local governments hope to achieve an objective that Ecology declines to define? Again, Ecology should identify those methods that it currently finds acceptable and allow local governments the latitude to choose alternate approaches, so long as the local government affirmatively demonstrates that it's chosen method provides results that are at least as accurate and risk averse as those recommended by Ecology.

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[25] *Id*. at 6.

[26] Determinations of whether a stream is fish-bearing or not should rely on the maps/determinations on this issue made by Indian tribes and the Washington Dept. of Fish and Wildlife.

[27] Interim Guidance at 7 (emphasis added).

[28] RCW 90.94.020(4)b).

[29] RCW 90.94.020(4)(c).

Common Currency for Evaluating the Effectiveness of Water and Non-Water Offset Projects
To be able to assess the relative effectiveness of actions, there must be some sort of common "currency" for quantifying effectiveness. Hence the importance of having WDOE identify either a method, or a very limited group of methods, for quantifying effectiveness of projects at achieving ecological benefits. One approach which, for better or worse, has achieved a fair amount of legitimacy, is the Habitat Equivalency Analysis (HEA) process used by WDOE, the Corps of Engineers, and NMFS for quantifying impacts on ESA-listed salmonids stemming from actions affecting aquatic habitat subject to permitting under Clean Water Act Sec. 404. There may be other methods capable of delivering somewhat objective or repeatable results. In any case, the current approach of not defining what must be achieved and leaving the question of what constitutes net ecological benefits up to diverse ad hoc opinions, is not a reasonable process for protecting and restoring instream resources.

It Is Essential that Mitigation Not Be Confused with Restoration.
Floodplain restoration/levee removal projects are listed as being examples of projects that could be considered high priority water offset projects.[30][31] These are also projects that are currently being funded and implemented (or are awaiting funding) for the purpose of improving/restoring salmon habitat that has been degraded by past activities, including but not limited to streamflow depletion. Numerous parties may be strongly tempted to "piggy-back" or include these floodplain restoration projects as part of the water offset that can be used to mitigate the impacts of future growth (including the impacts of consumptive use by new permit-exempt wells). How will WDOE ensure that the benefits of salmon habitat restoration projects will not be re-allocated to mitigating for future impacts of growth instead of their intended goal of restoring habitat productivity?

The interim guidance exacerbates this hazard. It encourages local governments and others to leverage resources and collaborate with others in developing projects.[32] It calls for alignment of offset projects with other restoration actions which "may also increase the likelihood of demonstrating NEB."[33] We want to be clear. Salmon restoration projects are intended to recover salmon habitat – NOT to mitigate for the impacts of new development. Salmon habitat restoration projects funded under any program other than 6091 are not intended to mitigate for new development and must not be considered in WDOE's NEB analysis. Unfortunately, the language of the draft NEB sends the mistaken message that local governments and planners should coordinate with salmon recovery actions and seek "other sources of funds" to help mitigate the impacts of new domestic permit exempt wells.[34] This imprecise language needs to be revised to make clear that while coordination with other habitat restoration plans is appropriate, those plans do not count in the NEB calculus. Only actions funded under 6091 can be considered in the NEB calculus. This also underscores the importance of local governments requiring new development to avoid and minimize their impacts.

Ecology's Guidance Should Place Greater Emphasis on Adopting Regulations that avoid or minimize the Impacts of Development.
Ecology's interim guidance contains some suggestions regarding measures local and state permitting authorities could adopt, including water conservation measures and improved stormwater management strategies. Such measures will help reduce the extent to which taxpayers are subsidizing new development. Also, state and local regulations governing beaver dam management/removal should be

[30] *Id*. at 5.
[31] If such measures are put forth as "water offset" projects, it is imperative that the proposals outline in detail the mechanism(s) by which the work will increase streamflow, along with the amount and timing of increased flow that will result.
[32] Interim Guidance at 7.
[33] *Id*.
[34] *Id*. at 7-8.

reviewed to make sure that they are consistent with state and local efforts to enhance stream flows and aquifer recharge. Beaver dams are a natural way of improving stream flows and recharging aquifers.[35] Removal of beaver dams' harms surface flow maintenance and groundwater recharge and should count as a negative in the net ecological benefits equation. Mitigation should be required for their removal.

Maintenance of Offset Projects

Owners of new permit-exempt wells will be receiving perpetual water rights. Accordingly, mitigation for the impacts of these withdrawals will also have to be perpetual. Responsibility for maintenance of offset projects is mentioned in the interim guidance,[36] but has not received the emphasis it needs. Many of these projects will either wear out in a few decades (or possibly get washed out in a year or two by high storm flows) or will need regular maintenance. What is the mitigation credit for projects that are intended to mitigate for permanent water withdrawals, but that have a limited lifespan? Is someone obligated to replace them? This is not a small matter. A good example of the importance of the issue is to look at what the Corps, EPA, and WDOE have found necessary to assure mitigation in perpetuity for wetland impacts.[37] No less consideration is necessary for mitigating the impacts of groundwater withdrawals. Unless water use and associated mitigation are monitored and implemented for as long as the water use occurs, the goal of more than mitigating the impacts of new permit-exempt groundwater withdrawals cannot be assured.

Definitions/Clarification Needed

What are the criteria for determining whether a high priority project is "feasible"?
What are the criteria for determining the "viability" of a lower priority water offset project?
The lack of definition for "net ecological benefits" was discussed earlier.

Conclusion

In conclusion, CELP continues to believe that non-water mitigation for ground and surface water withdrawals is unproven and a recipe for undermining senior water rights and instream flows for salmon. The absence of a definition of "net ecological benefit" and the vagueness of the direction for quantifying benefits and impacts illustrate that Ecology does not yet know how to assure that the impacts of groundwater withdrawals can be fully mitigated. The paucity of direction on how mitigation must be maintained in perpetuity – a topic with which Ecology should have some expertise because of its wetland mitigation responsibilities – further illustrates that Ecology has not fully considered what needs to be done to assure that impacts on surface and ground water are fully mitigated in perpetuity. That said, CELP stands ready to work with Ecology to try to get the state of Washington back on to pathway leading to sustainable water use.

Sincerely,

Trish Rolfe
Executive Director

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[35] For further information, *see*: https://kingcounty.gov/services/environment/animals-and-plants/beavers/Benefits.aspx (accessed October 23, 2018).

[36] Interim Guidance at 7.

[37] *See e.g.,* WDOE, Corps of Engineers, and EPA, Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance (Version 1, March 2006) (Publication # 06-06-011a) at 123. Here, Ecology, the Corps, and EPA emphasize the need to assure adequate funding (e.g., non-wasting endowment or performance bond) for assuring mitigation effectiveness in perpetuity, particularly where projects involve complicated engineering and/or significant maintenance.